

(2 of 2)

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Application Number	09/912,434	SEP 17 2003
Filing Date	July 24, 2001	
First Named Inventor	Donald Nelson	
Group Art Unit	2672	Technology Center 2600
Examiner Name	Chante E. Harrison	
Attorney Docket Number	IMMR058/00US	

Sheet 1 of 2

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
Chante E. Harrison		6,104,379		Petrich et al.	08-2000
		5,563,632		Roberts	- 10-1996
		4,542,291		Zimmerman	09-17-1985
		4,988,981		Zimmerman et al.	01-29-1991
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Attorney Docket Number IMMR058/00US

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

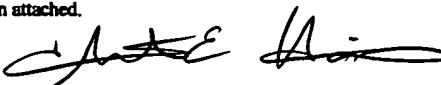
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
CA		P. Coiffet et al., "The LRP Dextrous Hand Master," <i>VR Systems Fall 1993 Conference</i> , Sig Advanced Applications, New York City, October 1993.	
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		Hirota, Koichi et al., "Development of Surface Display," <i>IEEE 0-7803-1363-1</i> , 1993, pp. 256-262.	
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				Filing Date	July 24, 2001	
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				Examiner Name	Chante E. Harrison	
Sheet	1	of	3	Attorney Docket Number	IMMR058/00US Technology Center 0000	

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U.S. PATENT DOCUMENTS

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John E. Lee

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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ²
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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CU	C1	Balgrie, "Electric Control Loading - A Low Cost, High Performance Alternative," <i>Proceedings of Interservice/Industry Training Systems Conference</i> , pp. 247-254, November 6-8, 1990	
CU	C2	Iwata, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993	
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	C7	Snow et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. NPO-17851; JPL Case No. 7348, pp. 1-4 with 45 pages of attachments, 06/15/1989	
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¹ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).² For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.³ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.⁴ Applicant is to place a check mark here if English language Translation is attached.



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Sheet	3	of	3	Application Number	09/912,434
				Filing Date	July 24, 2001
				First Named Inventor	Donald Nelson
				Group Art Unit	2672
				Examiner Name	Chante E. Harrison
				Attorney Docket Number	IMMR058/00US

<input checked="" type="checkbox"/>	C17	Adelstein, "A Virtual Environment System For The Study of Human Arm Tremor," <i>Ph.D. Dissertation</i> , Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90	
<input checked="" type="checkbox"/>	C18	Bejczy, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," <i>Science</i> , Vol. 208, No. 4450, pp. 1327-1335, 1980	
<input checked="" type="checkbox"/>	C19	Bejczy et al., "Generalization of Bilateral Force-Reflecting Control of Manipulators," <i>Proceedings Of Fourth CISM-IFTOMM</i> , Sep. 8-12, 1981	
<input checked="" type="checkbox"/>	C20	McAffee et al., "Teleoperator Subsystem/Telerobot Demonstrator: Force Reflecting Hand Controller Equipment Manual," <i>JPL</i> 1988, JPL D-5172	
<input checked="" type="checkbox"/>	C21	Minsky, "Computational Haptics: The Sandpaper System for Synthesizing Texture for a Force-Feedback Display," <i>Ph.D. Dissertation</i> , MIT, June 1995, archived 7/6/95	
<input checked="" type="checkbox"/>	C22	Jacobsen et al., "High Performance, Dexterous Telerobotic Manipulator With Force Reflection," <i>Intervention/ROV '91 Conference & Exposition</i> , Hollywood, Florida, May 21-23, 1991	
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<input checked="" type="checkbox"/>	C25	Terry et al., "Tactile Feedback In A Computer Mouse," <i>Proceedings of Fourteenth Annual Northeast Bioengineering Conference</i> , University of New Hampshire, March 10-11, 1988	
<input checked="" type="checkbox"/>	C26	Howe, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," <i>Proceedings of the 1992 IEEE International Conference on Robotics and Automation</i> , Nice, France, May 1992	
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<input checked="" type="checkbox"/>	C28	Rabinowitz et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contractor area," <i>Journal of The Acoustical Society of America</i> , Vol. 82, No. 4, October 1987	
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<input checked="" type="checkbox"/>	C31	Oubyoung et al., "A Low-Cost Force Feedback Joystick and Its Use in PC Video Games," <i>IEEE Transactions on Consumer Electronics</i> , Vol. 41, No. 3, August 1995	
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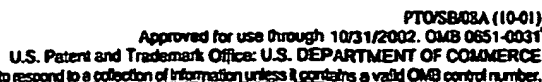
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Sheet	1	of	3
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Application Number	09/912,434
Filing Date	July 24, 2001
First Named Inventor	Donald Nelson
Art Unit	2672
Examiner Name	Chante E. Harris
Attorney Docket Number	IMMR-058/00US

~~SEP 27 2008~~

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U.S. PATENT DOCUMENTS					
Examiner	Cite No.	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CA		6,422,941	7/23/2002	Thomer et al.	
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		Country Code ²	Number ³	Kind Code ⁴ (if known)			
		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-6381		1/13/1992	Epoch Co. and Key-Planning Co.	
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		JP	H5-192449		8/3/1993	Taito Corporation	

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		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 issue.	
		ROSENBERG, "Virtual Futures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," Ph.D. Dissertation, Stanford University, June 1994.	
		ZILLES, "A Constraint-Based God-Object Method for Haptic Display," Department of Mechanical Engineering, Artificial Intelligence Laboratory, Massachusetts Institute of Technology, undated.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 3

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Application Number 09/912,434
Filing Date July 24, 2001
First Named Inventor Donald NELSON
Group Art Unit Unassigned
Examiner Name Unassigned
Attorney Docket Number IMMR-058/00US

PTO/SB/08A (08-00)

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Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
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		Office ³	Number ⁴	Kind Code ⁵ (if known)			
	B1		0-349-886	A1	Stork Kwant B.V.	01/03/1990	

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² See attached Kinds of U.S. Patent Documents.

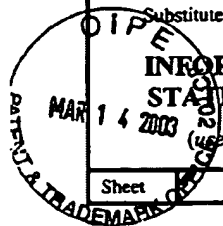
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STATEMENT BY APPLICANT

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Sheet 2 of 3

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Application Number	09/912,434
Filing Date	July 24, 2001
First Named Inventor	Donald NELSON
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	IMMR-058/00US

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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	C2	Iwata, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993	
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Sheet 3 of 3

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First Named Inventor	Donald NELSON
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	IMMR-058/00US

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